EMbaffle has been selected as Technology Provider for the **Process Boiling equipment** in a major Ammonia Conversion Facility in North America.

Facility is forecast to enter in service in October 2016 to provide 600 tonnes per day of anhydrous ammonia which will feed the existing Fertilizer Complex.

EMBoiler® can be effectively applied to any Chemical Process where Efficiency is of the essence.

EMbaffle patented design overcomes the inherent limitations of the conventional Waste Heat Boiler units:

+ syngas cooling and steam generation occur in just one single piece of equipment, in a integrated steam drum assembly, with consequent benefits in terms of **compactness** and **lightness**
+ **vertical layout** permit to sensibly **reduce footprint** and **encumbrance**
+ **equipment life increases** as a consequence of reduced crevice **corrosion** due to the patented open grid structure

The innovative “fountain design” selected by EMbaffle, respect to competitive solutions achieves:

+ **effective mechanical reliability** by a simpler solution to **reduce stresses** on the channel to tube-sheet joint, tube-sheet and channel closure
+ **superior thermal efficiency** by a better distribution of the steam phase in the shell-side which **avoids hot spots formation**

As a major consequence the EMbaffle design permits to **sensibly reduce** all the related **Capital & Operational Costs**.
The Synthesis of Ammonia. Energy Saving in the Chemical Industry

Two gas streams are required: hydrogen, usually produced from natural gas through a Pressure Swing Adsorption unit, and nitrogen, coming from the Air Separation unit.

The two streams (N₂ + H₂) are compressed at high pressure and, as a consequence, at high temperature and routed to a special heat exchanger where reaction occurs and ammonia is produced.

Ammonia reaction is exothermic; part of conversion occurs in the Process Boiler where the released energy is used to vaporize boiling water produced in the facility.

Ammonia is condensed, pressurized and stored for further use.

Non reacted gases (N₂ + H₂) are recycled in the Process.

Steam is used as ingredient in the process of natural gas reforming to produce hydrogen.

Energy Saving drives the design and operation of the entire Process.

Promoting the EMbaffle® technology

EMbaffle B.V. is actively committed in the identification of new potential business opportunities.

We operate in consolidated Oil & Gas markets and in emerging high value added segments.

Please refer to us to know how to become part of our Network.

For any information contact us at:

LionsParc
A. Van Leeuwenhoekweg 38 A10
2408 AN Alphen a/d Rijn, The Netherlands

Telephone  +31 172 447 040
Licensing enquiries  licensing@embaffle.com
Sales enquiries  sales@embaffle.com